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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,049	12/04/2001	Stuart T. Linsky	22-0149	9203

7590 09/15/2005

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EXAMINER

GHULAMALI, QUTBUDDIN

ART UNIT PAPER NUMBER

2637

DATE MAILED: 09/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/005,049	LINSKY ET AL.	
	Examiner	Art Unit	
	Qutub Ghulamali	2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9 and 18-27 is/are allowed.
- 6) ☒ Claim(s) 10-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is responsive to the Amendment filed by the applicant on 06/13/2005, which includes two terminal disclaimers, 10/005,063 and 10/004,773, both of which are acknowledged hereby.
2. The objection to claims 1 and 18, under 35 USC 112, second paragraph cited in the Office Action dated March 14, 2005, is hereby withdrawn in view of amendment to claims 1 and 18, submitted by the applicant 06/13/2005. The amendment is acceptable.

Response to Arguments

3. Applicant's arguments/remarks filed 06/13/2005 with reference to rejection of claims 10-17, under 35 USC 103(a), has been fully considered but is not persuasive.
4. Applicant asserts that the invention was owned by, or subject to an obligation of assignment to, the same entity as reference 6,236,687 at the time this invention was made, or was subject to a joint research agreement at the time this invention was made. However, reference 6,236,687 additionally qualifies as prior art under another subsection of 35 U.S.C. 102, and therefore, is not disqualified as prior art under 35 U.S.C. 103(c).

Applicant may overcome the applied art either by a showing under 37 CFR 1.132 that the invention disclosed therein was derived from the invention of this application, and is therefore, not the invention "by another," or by antedating the applied art under 37 CFR 1.131.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being obvious over Caso (USP 6,236,687) in view of Odenwalder (USP 6,396,804).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention “by another”; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Regarding claim 10, Caso discloses a demodulator unit (fig. 1, element 22), demodulate an input signal in a communications system comprising:
a phase lock loop, each having a first block decoder configured to decode bursts of the input modulated signal at a decode rate to generate a set of associated code words and a

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phase/frequency error estimate (col. 3, lines 23-35; col. 4, lines 9-17). Caso, however, is silent regarding a phase locked loop selectively apply excess processing power to a burst of input modulated signals; and

a selection circuit which identifies a burst of said input modulated signal to be demodulated with excess processing power, said selection circuit providing said identified burst to said one of said phase locked loops which is adapted to selectively apply excess processing power in order to re-process said burst of said input modulated signal.

Odenwalder in a similar field of endeavor discloses a communications system wherein data is transmitted at higher maximum rates and with a greater variety of possible rates adapted to various radio channel conditions comprising a plurality of decoders selectively apply excess processing power to a burst of input modulated signals (col. 14, lines 35-47); and

a selection circuit which identifies a burst of said input modulated signal to be demodulated with excess processing power, said selection circuit providing said identified burst to said one of said phase locked loops which is adapted to selectively apply excess processing power in order to re-process said burst of said input modulated signal (col. 17, lines 34-50). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use higher data rate circuit with greater efficiency to allow interface over multiple types of communication as taught by Odenwalder in the system Caso because it can facilitate continuous transmission of data via transmit channels having differing power consumptions.

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7. Claims 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caso et al (US Patent No. 6,236,687) in view of Odenwalder (US Patent 6,396,804) as applied to claim 10 above, and further in view of Khayrallah et al (US Patent 5,983,385).

Regarding claim 11, Caso and Odenwalder in combination disclose substantially every feature of the claimed invention in claim 10. Caso and Odenwalder disclosure, however, is silent regarding first block decoder generate reliability metric results. Khayrallah in a similar field of endeavor discloses a communications system and method wherein a selective recursive decoding process based on reliability metric produced by the decoding means (556a and 556b) (col. 6, lines 38-55; col. 8, lines 10-21). Therefore it would have been obvious to one skilled in the art at the time the invention was made to use a block decoder to generate reliability metric results as taught by Khayrallah in the circuit of Caso and Odenwalder because it can provide enhanced capabilities with less complex encoder and decoder designs.

Regarding claim 12, Caso and Odenwalder in combination disclose substantially every feature of the claimed invention in claim 10. Caso and Odenwalder disclosure, however, is silent regarding reliability metric results comprise correlation results taken during decoding by said first block decoders. Khayrallah in a similar field of endeavor discloses reliability metric results comprise correlation results taken during decoding by said first block decoders (col. 7, lines 20-42). Therefore it would have been obvious to one skilled in the art at the time the invention was made to use a reliability metric results with the coding process as taught by Khayrallah in the circuit of Caso and Odenwalder because it can provide correlation and error correction during decoding.

Regarding claims 13 and 15, Caso and Odenwalder in combination discloses substantially every feature of the claimed invention in claim 10. Caso and Odenwalder disclosure, however, is silent regarding a second decoder selects codewords from said set of associated codewords based on the reliability metric results from said first block decoders. Khayrallah in a similar field of endeavor discloses a second decoder selects codewords from said set of associated codewords based on the reliability metric results from said first block decoders (col. 7, lines 20-42).

It would have been obvious to one skilled in the art at the time the invention was made to use a codewords from first decoder by the second decoder based on reliability results from the first decoder as taught by Khayrallah in the circuit of Caso and Odenwalder so as to provide improved burst error correcting capability.

Regarding claims 14 and 17, Caso and Odenwalder in combination discloses substantially every feature of the claimed invention in claim 10. Caso and Odenwalder disclosure, however, is silent regarding a selection circuit. Kayrallah in a similar field of endeavor discloses codeword selection circuit identifies burst based on the reliability metric results from first block decoder (col. 7, lines 56-67; col. 8, lines 10-20).). It would have been obvious to one skilled in the art at the time the invention was made to use a selection circuit identify burst in the decoding process as taught by Khayrallah in the circuit of Caso and Odenwalder because it can improve the iterative decoding process mitigate errors.

Regarding claims 16, Caso and Odenwalder in combination discloses substantially every feature of the claimed invention in claim 10. Caso and Odenwalder disclosure, however, is silent regarding a second outer block decoder preselects the codewords from among said set of

associated codewords. Kayrallah in a similar field of endeavor, discloses second outer block decoder preselects the codewords from among said set of associated codewords (col. 8, lines 10-20). It would have been obvious to one skilled in the art at the time the invention was made to use a second outer block decoder preselect the codewords from among said set of associated codewords as taught by Khayrallah in the circuit of Caso and Odenwalder because it can improve the iterative decoding process by minimizing errors.

Allowable Subject Matter.

8. Claims 1-9, 18-27 allowed.

Conclusion

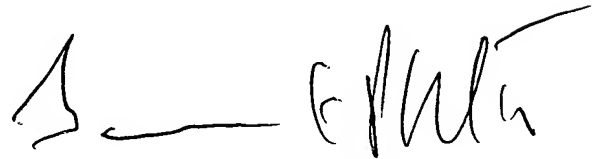
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qutub Ghulamali whose telephone number is (571) 272-3014. The examiner can normally be reached on Monday-Friday from 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

QG.
September 8, 2005.

A handwritten signature in black ink, appearing to read 'J. K. Patel', with a long horizontal line extending to the left.

JAY K. PATEL
SUPERVISORY PATENT EXAMINER